User manual for the AddOn Active Directory Synchronisation (ADSynchronisation)

User manual

CRM-AD-Synchronisation – for Microsoft Dynamics CRM 2011

For version 5.0.0

Content

1. Preface

Thank you for choosing our Active Directory Synchronisation (AD Synchronisation) for Microsoft Dynamics CRM 2011.

With this service, which has only read access to the Active Directory, you can automatically transfer changes in user records from the Active Directory into Microsoft Dynamics CRM.

It installs quick and easy and allows a customized interface configuration.

In the following pages your will find detailed instructions on installing, configuration and usage.

2. Installation

2.1. Technical installation requirements

A Microsoft Dynamics CRM 2011 OnPremise version must be installed. The AddOn for the AD Synchronisation cannot be used with an online version of Microsoft Dynamics CRM.

The AD Synchronisation cannot be installed in the Sandbox mode, since in this case, the Plug-In, which carries out the installation, is unable to access the Active Directory.

## 2.2. Rights for installing the AD Synchronisation

In order to carry out the solution for the AD Synchronisation, the system administrator role as well as the system deployment administrator role is required.

To work with the Microsoft AddOn for the Active Directory, read permissions in the Active Directory of the organization as well as read and write rights in Microsoft Dynamics CRM are necessary.
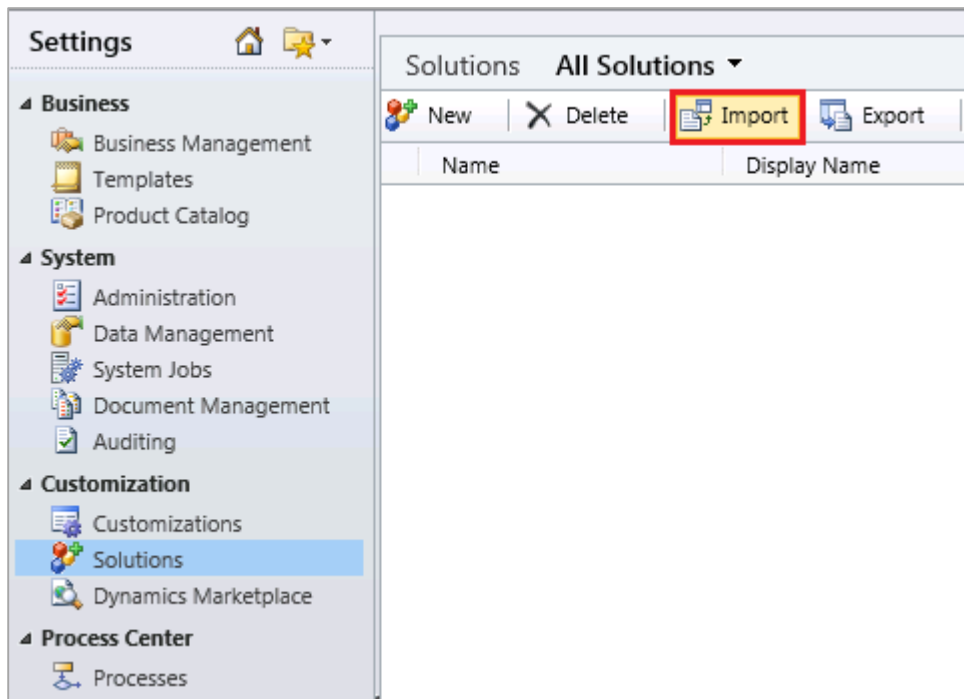
2.3. Importing the solution

You received a solution from us.

In the sitemap of the navigation area of your Microsoft Dynamics CRM 2011 systems, go to "Settings" and activate the "Solutions" entity in the left application area.
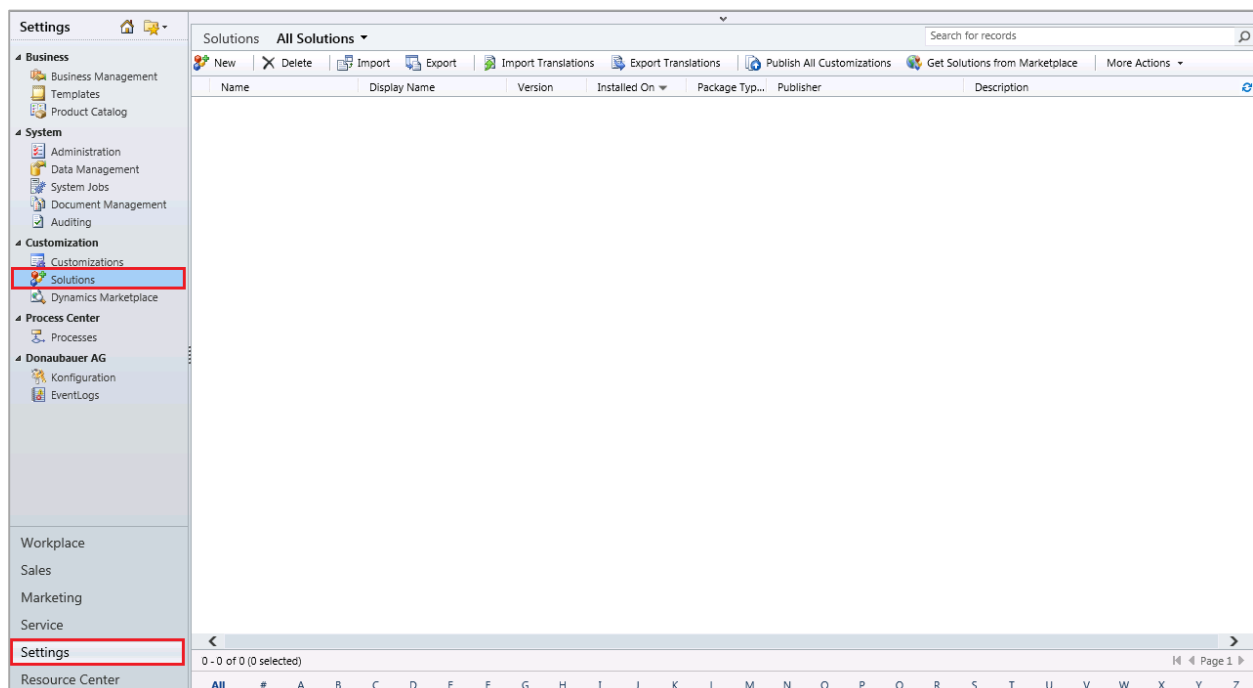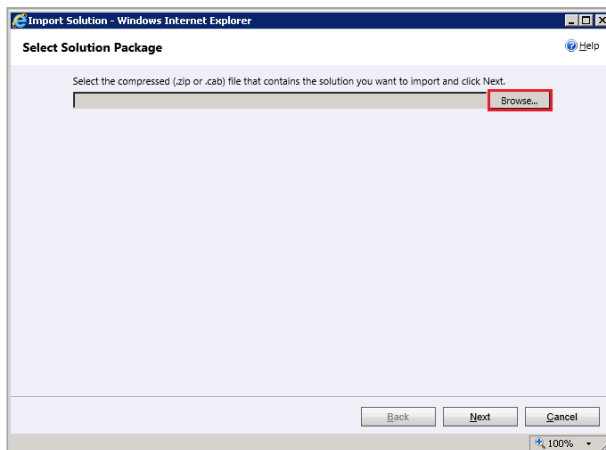

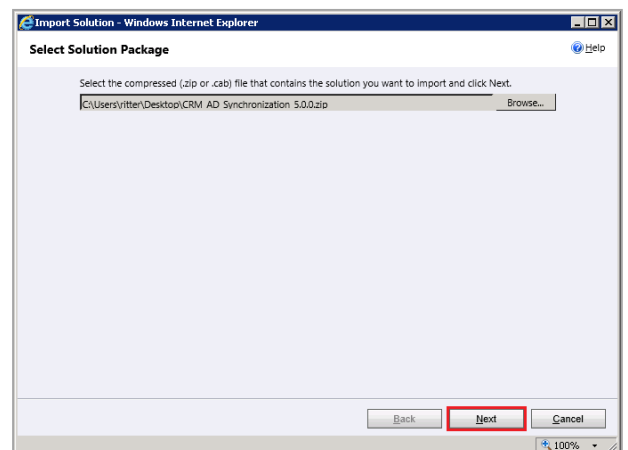All current solutions of your CRM system are displayed here.

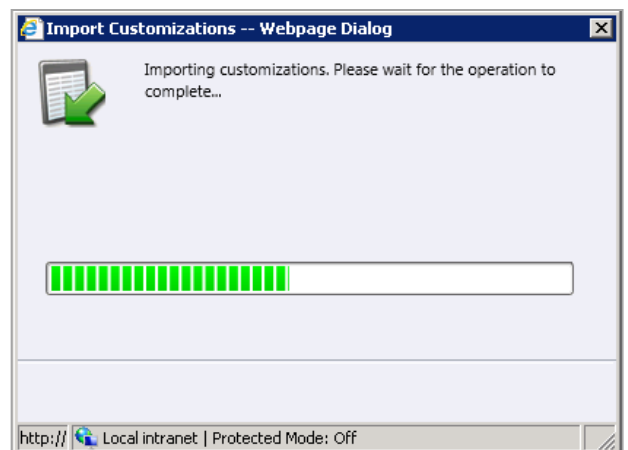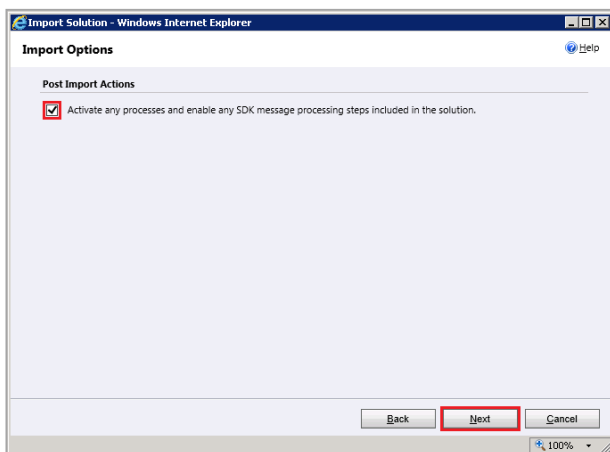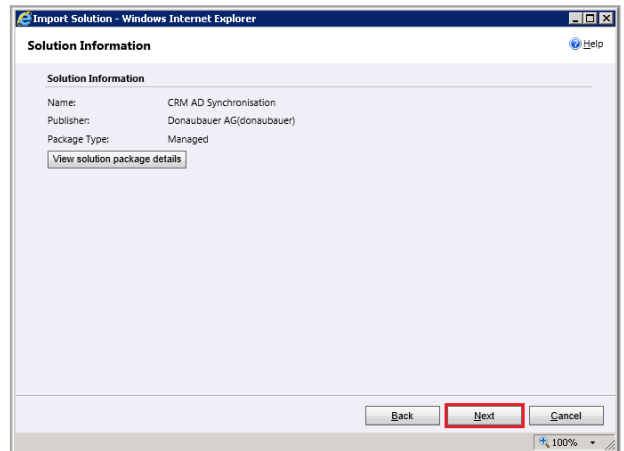Now, click on the "Import" button in the toolbar.

The following window opens up:

Use the "Browse" button and select the storage location of the solution you received from us. Open this solution.

The solution will be displayed in the data field. You may now confirm this and the following windows by clicking on the "Next" button.
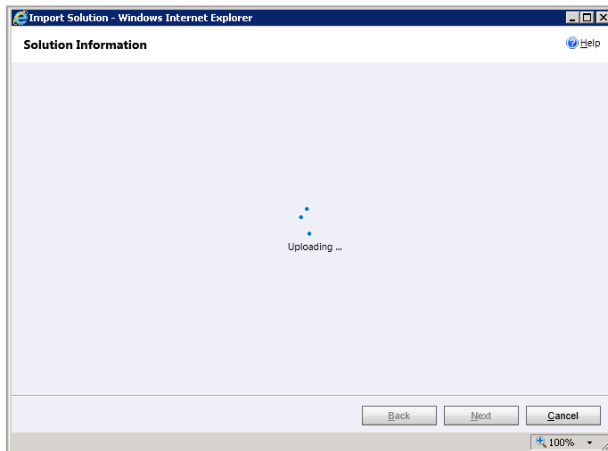
In this window, please tick the displayed box for activating all processes and solutions and complete it by clicking the "Next" button.

Now the solution is being imported. This process may take several seconds.

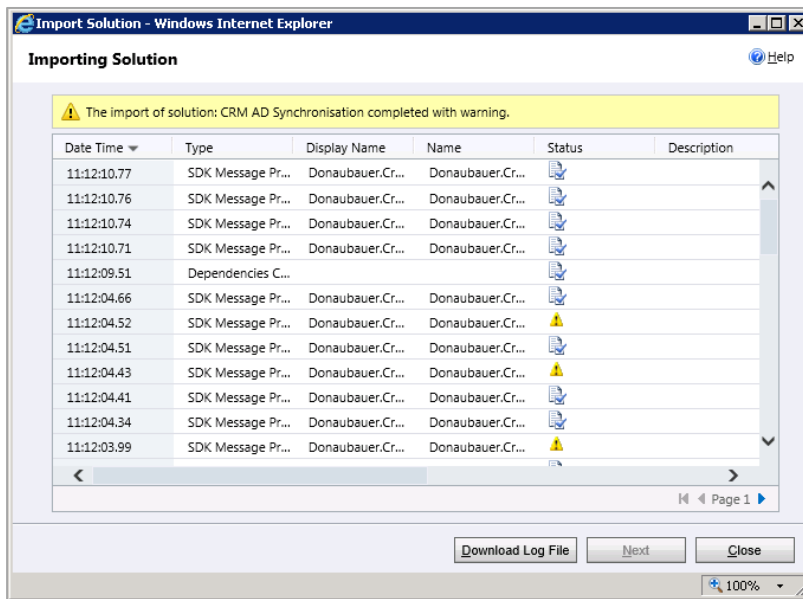As the installation process is finished, the eventlog opens for checking and information purpose.

If all points listed have a "ticked" item in the "Status" column, the installation has been completed successfully and error-free. You may now conclude the process.

The here displayed screenshot shows a warning message, resulting from the following problem: the interface is available both in German and in English. The CRM, however, is only available in German.

Therefore, these warning messages can be ignored.

An entry named "crmadsyninterface" (name displayed: CRM AD Synchronisation) appears in the CRM system in the "Solutions" entity.
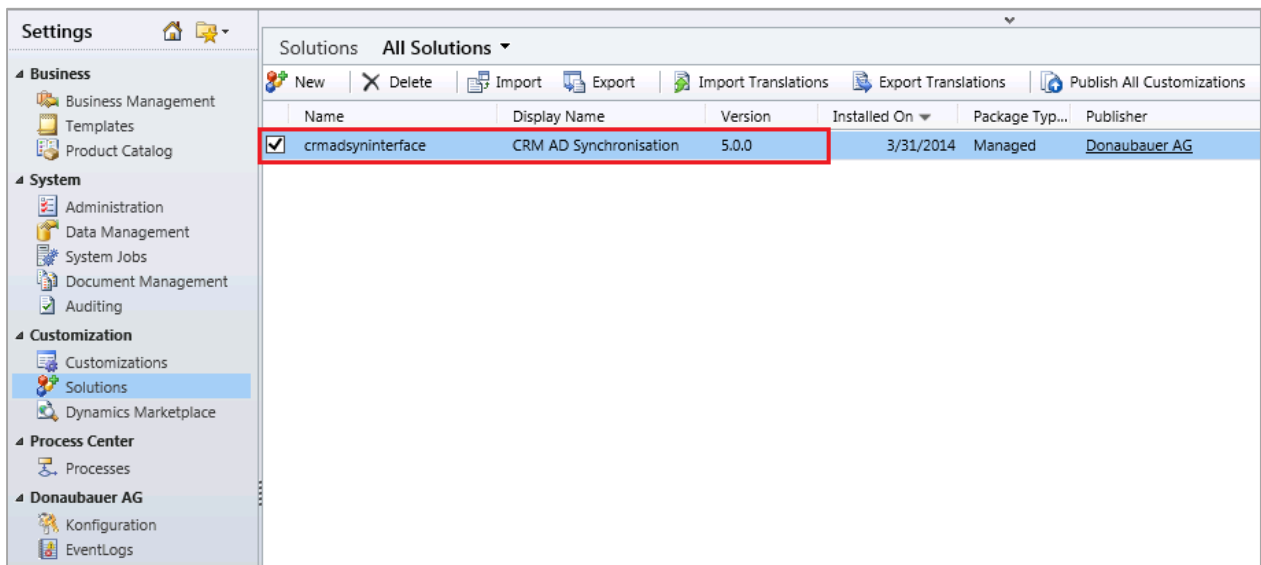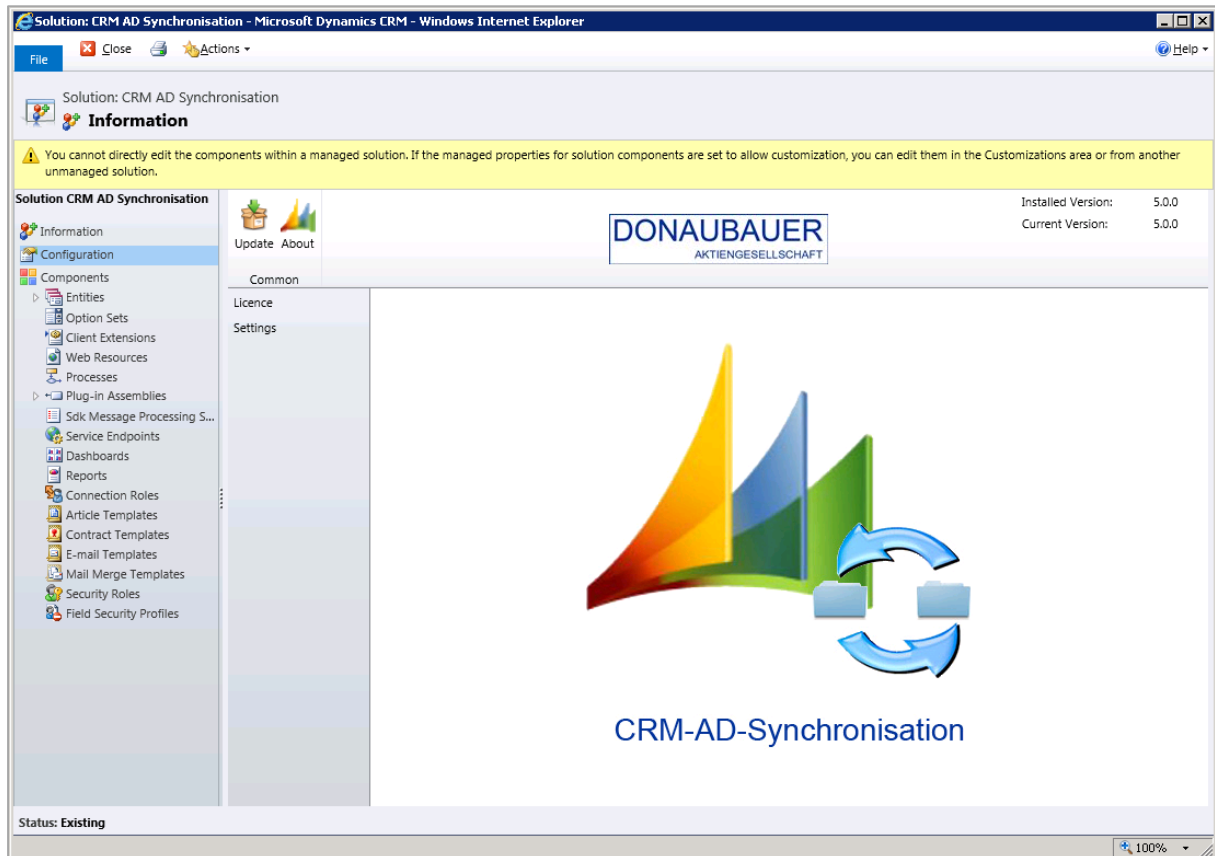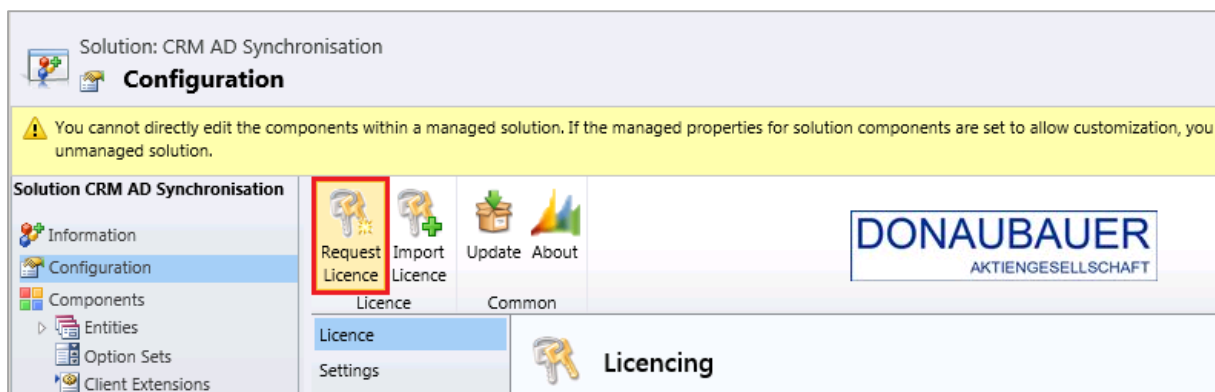
3. License request

3.1. Automatic license request

Now you need the respective license key for your interface.

Open the imported solution by double clicking on it. The following window appears.

First, click on the "License" button and then click on "Request License". Now, please follow the instructions of the pop-up window.

An email adress is required for the automatic license request. Additionally, you must accept the terms of agreement.

By clicking on the "Continue" button, the CRM server will connect one-time with our server, which will then transmit the license key to your system.

After the successful import of the license key, the according information will be displayed.

3.2. Request a license without internet connection

If the CRM server cannot connect to the internet, the following window will appear after clicking on the "Request License" button.

In this case, please send us the displayed information via email to lizenzen@donaubauer.com.

With this information, we can generate your license, which will be sent to you immediately via email.

After receiving the license key from us, you need to import it into your system.

To do so, again open the imported solution of the AD Synchronisation interface and click on the "License" button and enter the license key in the right field. Now, click on the "Import License" button.

The following window displays the end user license agreement, which you accept by installing the AD Synchronization together with the Donaubauer AG. Please read this agreement carefully before continuing the software installation. You can accept the terms of the license agreement, if you agree with them.

After importing the solution, the fields of the "Licenceinfo" were filled automatically with the current data of your license key.

4. Configuration of the settings

To configure the interface, open the imported solution as in the image below.

Now, go to "Settings" in the SiteMap and in the following window you may carry out the necessary settings.

4.1. The Log Level

The Log Level defines which messages are recorded. The recording takes place in the "Eventlog" entity. You may select from the following options:

Off   - No messages are recorded.

Error   - Only error messages are recorded.

Warning   - Error messages and warnings are recorded.

Information   - All messages are recorded.

As a standard, we recommend to set to "Error".

4.2. Das Tracing Level

With tracing, detailed data for an error search can be collected.
By setting the tracing level the degree of detail can be determined: the higher the tracing level, the more information are collected.

Here are the possible options:

0	– No details are recorded.
1	– short details for orientation purposes are recorded.
2	– All significant details of the functions are recorded.
3	– All events are recorded.

As a standard, we recommend to set the tracing level up to "3".

4.3. The Synchronization

4.3.1. Email recipient ID

The "E-Mail recipient id" field is filled with the GUID of a CRM user.
This user serves as recipient of the automatically generated notification email of the AD Synchronisation. *(For further information on the email notification see item 5.3)*

The user should have stored an email adress in CRM, otherwise the email cannot be sent.

4.3.2. Test mode

With the test mode, the program can be carried out without making changes.

When this box is ticked, the AD Synchronisation is carried out in the test mode and all possible changes are recognized but, however, not executed.
The CRM user records always remain unalterd in the the test mode.

All possible changes are docuemented in an email as well as with tracing.

4.3.3. Activate user

With this field, the alignment of the AD user record state and the CRM user state can be enabled or disabled in order to **activate** a user.

This function is only available with the Enterprise version.

When this box is ticked, this function is executed.
If, for instance, an AD user record is activated, the CRM user record will be activated as well.

An alignment in order to deactivate an user is not possbile with this function.
If, for instance, an AD user record is deactivated, the CRM user record, however, will not be deactivated.

When this field is not ticked, this function is not executed, meaning: if an AD user record is activated, the CRM user record will not be activated.

4.3.4. Deactivate user

With this field, the alignment of the AD user record state and the CRM user state can be enabled or disabled in order to **deactivate** a user.

This function is only available with the Enterprise version.

When this field is ticked, this function is executed.
If, for instance, an AD user record is deactivated, the CRM user record will be deactivated as well.

An alignment in order to activate an user is not possbile with this function.
If, for instance, an AD user record is activated, the CRM user record, however, will not be activated.

When this field is not ticked, this function is not executed, meaning: if an AD user record is deactivated, the CRM user record will not be deactivated.

An individual combination of the functions "Activate user" and "Deactivate user" is possible.
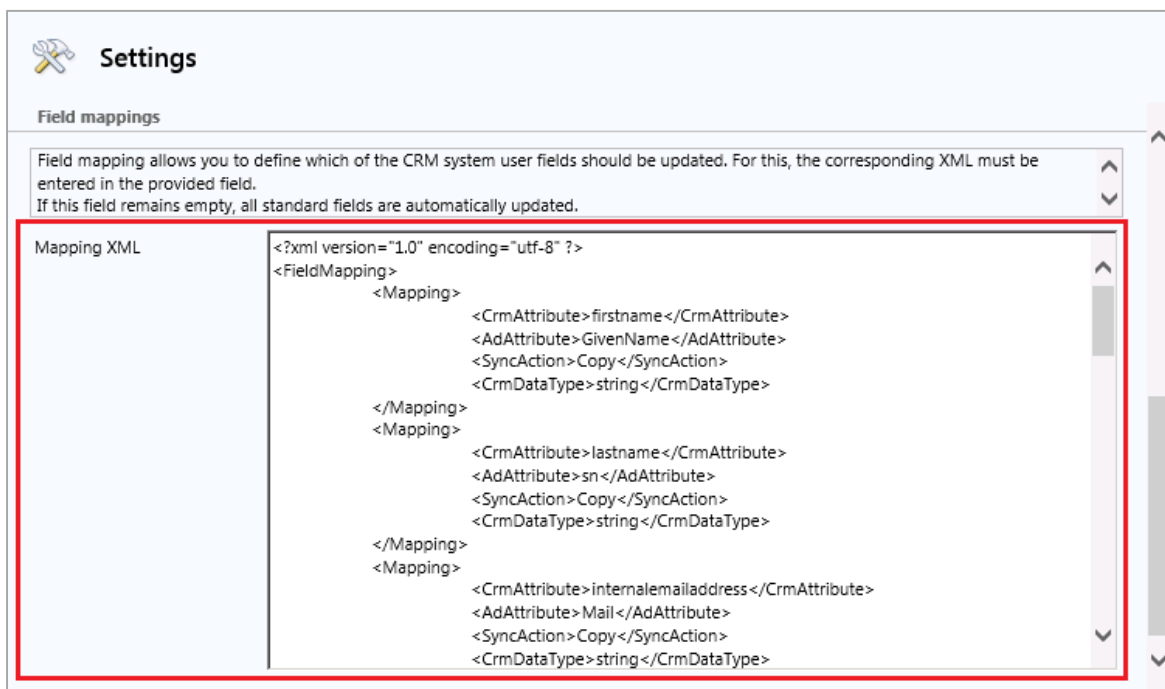
4.4. Field mapping

The field mapping allows you to select the fields of the the CRM user which should be updated.

Thereto, enter the corresponding XML in the provided field.
If you leave this field empty, all standard fields are updated automatically by the provided XML. These standard fields are listed in item 4.5.1.

A customized "Mapping XML" is only available with the Enterprise version.

The following definitions are possible:

Note: all XML tags have the "case sensitive" property, therefore the user must pay attention to upper and lower case.

The element "FieldMapping"

The element "FieldMapping" descripes the field mapping XML.

Syntax:
<FieldMapping></FieldMapping>

Parent Elements		
The "FieldMapping" element has no parent elements and displays the Root element.		
Attributes		
The "FieldMapping" element has no attributes.		
Child elements		
Element name	**Description**	**Use**
Mapping	Alignment of the fields in AD and CRM	mandatory field

The element "Mapping"

The element "Mapping" descripes the alignment of the fields in the Active Directory and the CRM.

Syntax:
<Mapping></Mapping>

Parent elements		
Element name	**Description**	**Use**
FieldMapping	Root element	mandatory field
Attributs		
Property name	**Description**	**Use**
CrmAttribute	Schema name of the field in CRM	mandatory field
AdAttribute	Schema name of the field in the Active Directory	mandatory field
SyncAction	Describes the action to be carried out	mandatory field
CrmDataType	Describes the data type of the CRM field	mandatory field
Child elements		
The "Mapping" element has no child elements		

Attributes of the "Mapping" element

With the help of the actions listed below, the corresponding fields can be updated within the Active Directory and the CRM:

Field name	Schema name in CRM	Schema name in AD	Action	CRM data type
First name	firstname	GivenName	Copy	string
Last name	lastname	sn	Copy	string
Email	internalemailaddress	Mail	Copy	string
Telephone.	address1_telephone1	TelephoneNumber	Copy	string
Mobile Phone	mobilephone	mobile	Copy	string
Fax	address1_fax	facsimileTelephoneNumber	Copy	string
Homephone	homephone	homePhone	Copy	string
Pager	address1_telephone3	pager	Copy	string
Country	**address1_country**	**c**	**ConvertCountry**	**string**
State or Province	address1_stateorprovince	st	Copy	string
Postal Code	address1_postalcode	postalCode	Copy	string
City	address1_city	l	Copy	string
Street	address1_line1	streetAddress	Copy	string
State	isdisabled	userAccountControl	SetState	bool

A complete XML-file containing all fields of **this** table can be found in the appendix in point 8.2.

Special characteristic with the synchronisation of the field "country"

The Active Directory maintains the entry of the country only with its first two letters. When synchronizing the data with the CRM system, this entry must be adjusted. The action "ConvertCountry" translates the two-letter entry of the Active Directory into the complete name of the country. This name is always in English.

Example: Deutschland - DE - Germany

4.4.1. Fields of the standard version

If you have purchased a standard version of the AD Synchronisation, the following fields are checked and updated:

First name, Last name, Email, Telephone, Mobiel Phone, Fax, Homephone, Pager, State or Province Postal Code, City, Street.

4.4.2. Fields of the Enterprise version

The Enterprise version of the AD Synchronisation can synchronise **any** available field of the Active Directory, especially new and user-defined fields, with the corresponding filed of the CRM user record.

The field entries in the settings are automatically saved when closing.

After closing the solution "crmadsyninterface" and clearing the cache of the Internet Explorer by the shortcut Crtl + F5 a new section "Donaubauer AG" with the entites "Configuration" and "EventLogs" is displayed in the site map.

The "Configuration" entity lists certain values. Here, you can, for instance, look up the current license key. Furthermore, the values changed in the "settings" are displayed.

The "EventLog" entity doesn't shows any entries yet. If any errors occur during the work with the AD Synchronisation, they will be documented in this tool.

5. Use of the Active Directory Synchronisation

To start the AD Synchronisation, go to "Settings" in the Sitemap in the navigation area of your Microsoft Dynamics CRM and activate the entity "Solutions" in the left application area.
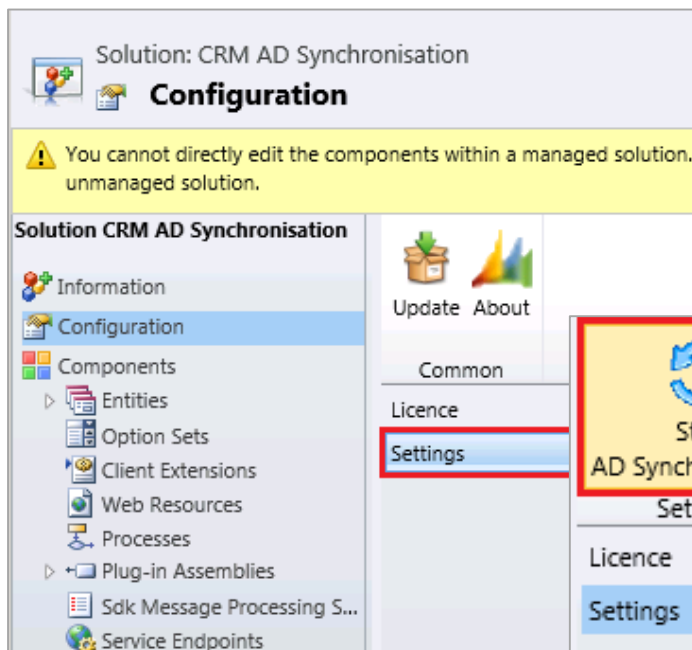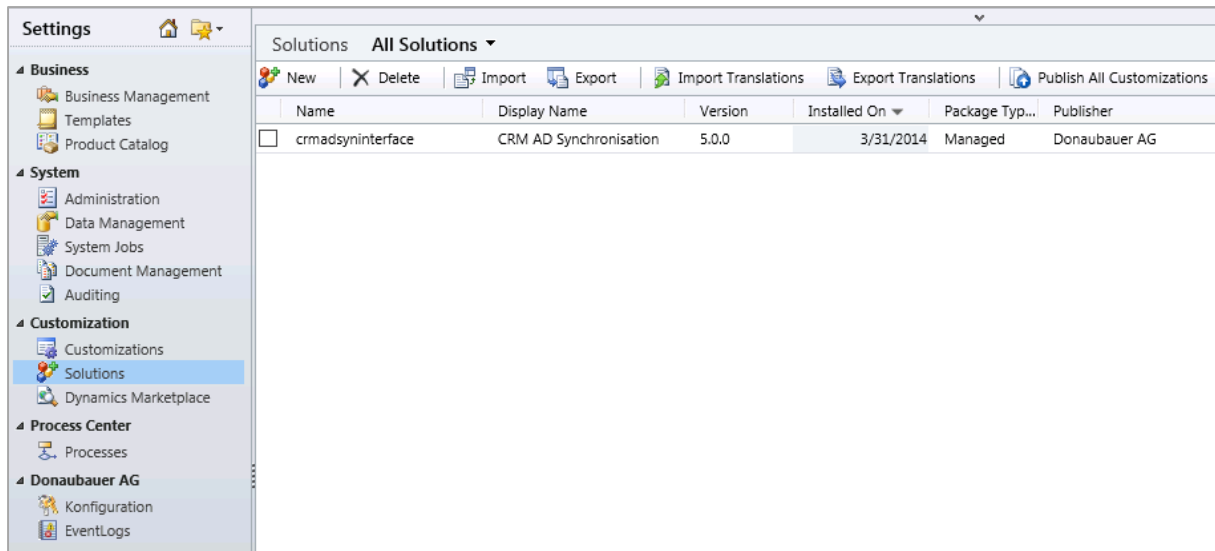
Open the solution "crmadsyninterface" by double-clicking and go to the configuration page.
Then, go to "Settings" in the SiteMap.

In the next window click "Start AD Synchronization".
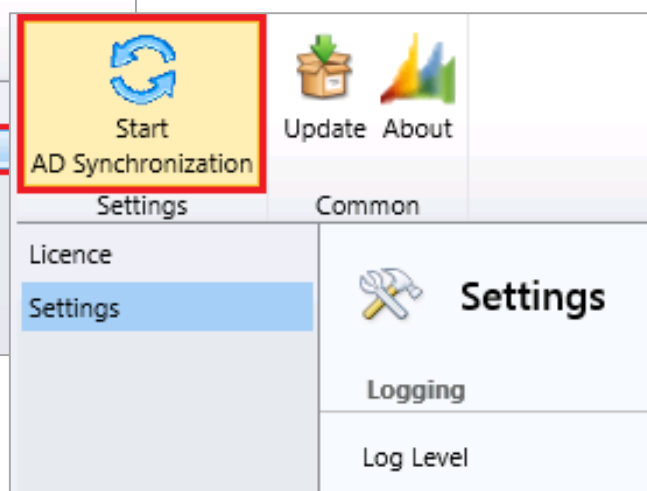
When clicking the button, a bulk delete job is generated and subsequently opens in a new window.

This bulk delete job browses the configuration entity for a record with a specific name.
(A record with his name **must not** exist!)

Since there is no such record, nothing is deleted by the bulk delete job.
When the bulk delete job, however, retrieves the configuration entity and browses for the record, a plugin, which carries out the ___AD Sychnronisation___, starts.

This means: **this system order is equivalent to the *AD Synchronisation*!**

You can perform your desired settings for the AD Synchronisation in the bulk delete process information window.

To do so, click "Actions" in the upper toolbar and select "Modify Recurrence".

When selecting "**Never**", the bulk delete job will never be carried out.

When selecting "**Today at:**" you can set a point of time to carry out the AD Synchronisation.

You can either chose a time from the dropdown menu or enter a time in the field yourself.

When selecting "**Schedule recurrence**" you can set individual options for the repetition of a system order.

Run the job after every:
This selection defines the time interval in which the order will be repeated.

Here, you can enter a value between "1" and "365" days. When you enter "1", the AD Synchronisation will be carried out **one time** every day. When you, for example, set the value to "30", the order will be carried out **one time** every 30 days.
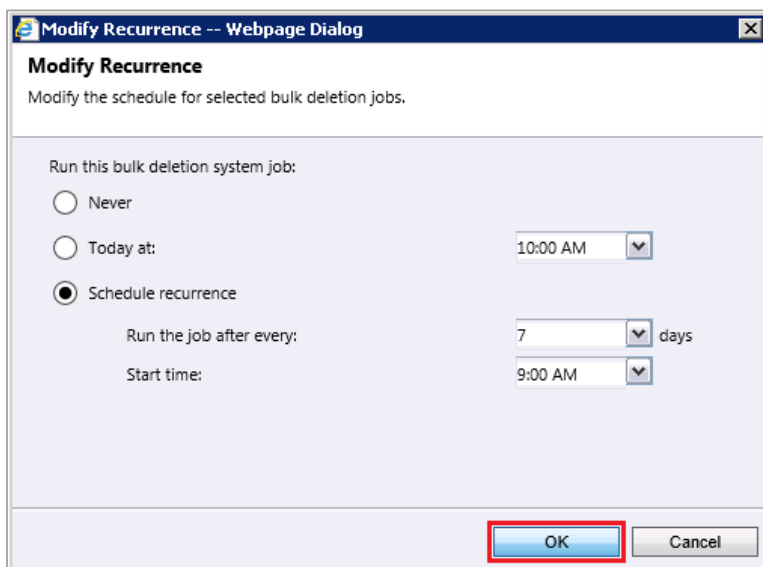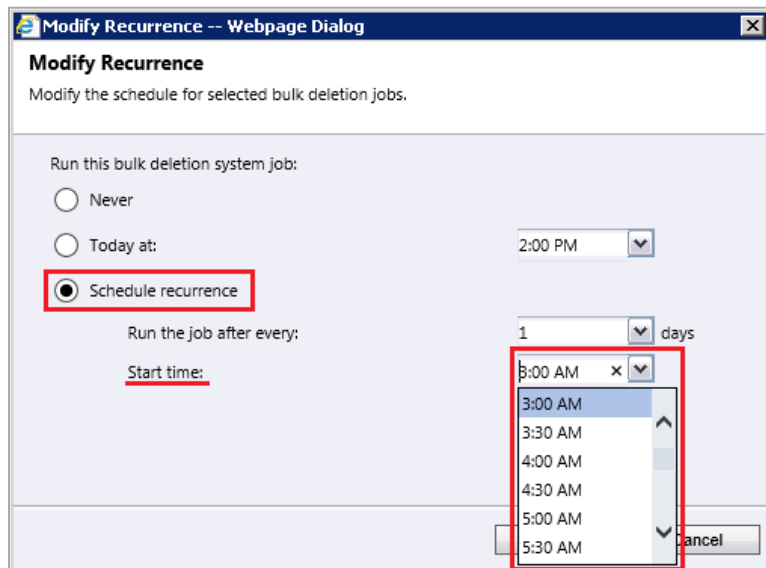
Start time:

After chosing the time interval to carry out the system order, you have to select at which time of the respective day it should start.

Again, you can either chose a given time from the dropdown menu or enter a time yourself.

Important:

If you do not change the starting time, the AD Synchronisation won't start at the respective time until the next day.

When all settings are carried out, please confirm the changes with the "OK" button.

Your Active Directory Synchronisation will now be carried out with your desired settings.

When changes are detected after carrying out the AD Synchronisation, you will receive a notification email.

The "Actions" dropdown menu provides you with additional settings.

With the menu item "**Cancel**" you can stop the current system order and therefore prevent any further carrying out of the AD Synchronisation.

To do so, click "Cancel" and confirm the following dialog with "OK".
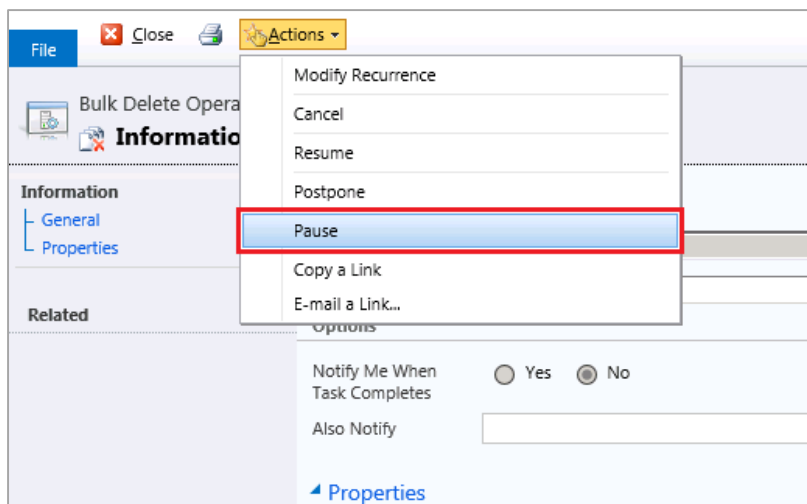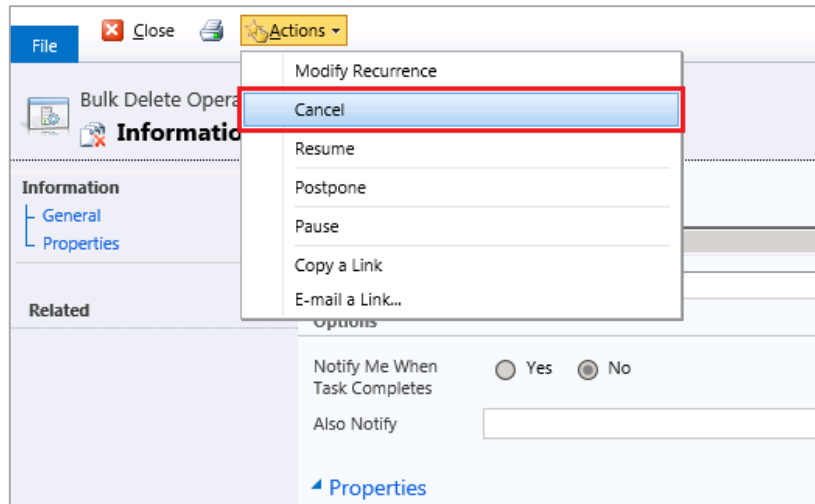
The "**Pause**" function pauses the AD Synchronisation.

The AD Synchronisation is paused until you decide to continue the system order.

To do so, click "Pause" and confirm the following dialog with "OK".

In order to continue the AD Synchronisation, please click the "Resume" button.

To do so, click "Resume" and confirm the following dialog with "OK".
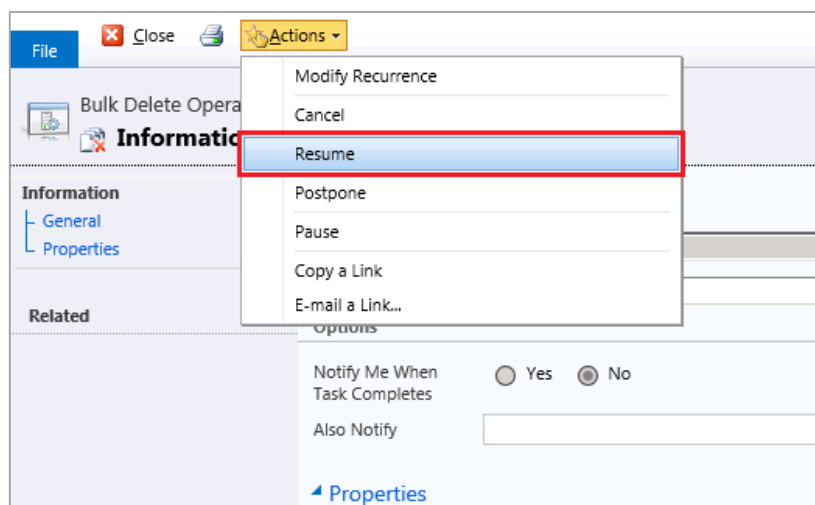
As an alternative you can use the "Postpone" function in order to pause the system order.
Here, the AD Synchronisation is stoped and will be continued to a later point of time. This point of time is determined by the user itself after clicking the respective button.
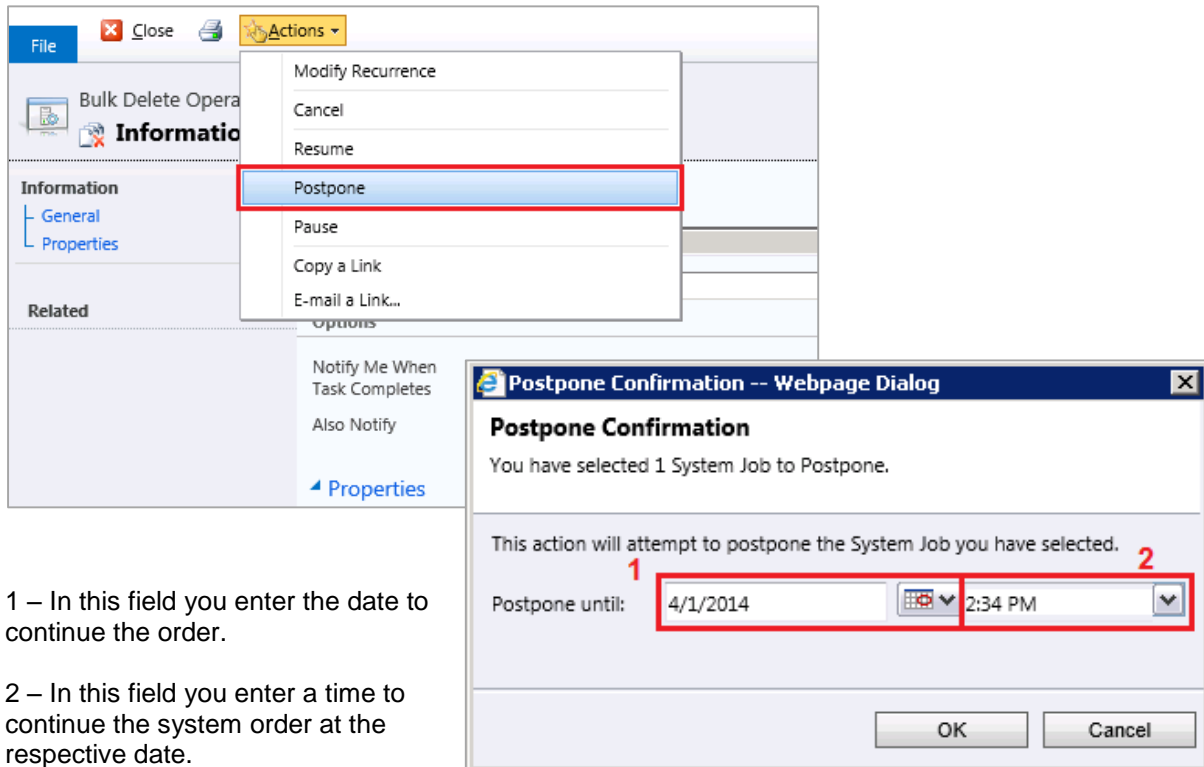
1 – In this field you enter the date to continue the order.

2 – In this field you enter a time to continue the system order at the respective date.

Now, confirm this dialog with the "OK" button.

5.1. Email notification

By entering the email recipient ID in the configuration, the corresponding CRM User will receive a notification email after every successful performance of the AD Synchronisation.
This email, however, is only sent when changes are available.

The language of the email is English. If the user's CRM is German, the email language will be German as well. Any other languages will use English.

The notification email serves as information about changes that are available or were made.

The email contains the following information:

- Number of detected AD users

- Number of detected CRM users

  About the respective changes:

  o Full name of the affected CRM user

  o Field name

  o Old field data

  o New field data

Please note:
If the AD Synchronisation is carried out in the test mode, the email contains only the changes available. The CRM data were not automatically updated.

If you use the test mode, you will find closer information about it in the email.

6. Update

When a new update of our Active Directory Synchronisaiton for Microsoft Dynamics CRM is available, you can install it directly. For this, please process as follows.

Just as for installing the AD Synchronisation, go in the sitemap of the navigation area of your Microsoft Dynamics CRM system, go to "Settings", then activate the "Solutions" entity in the left application area and double click on "crmadsyninterface".
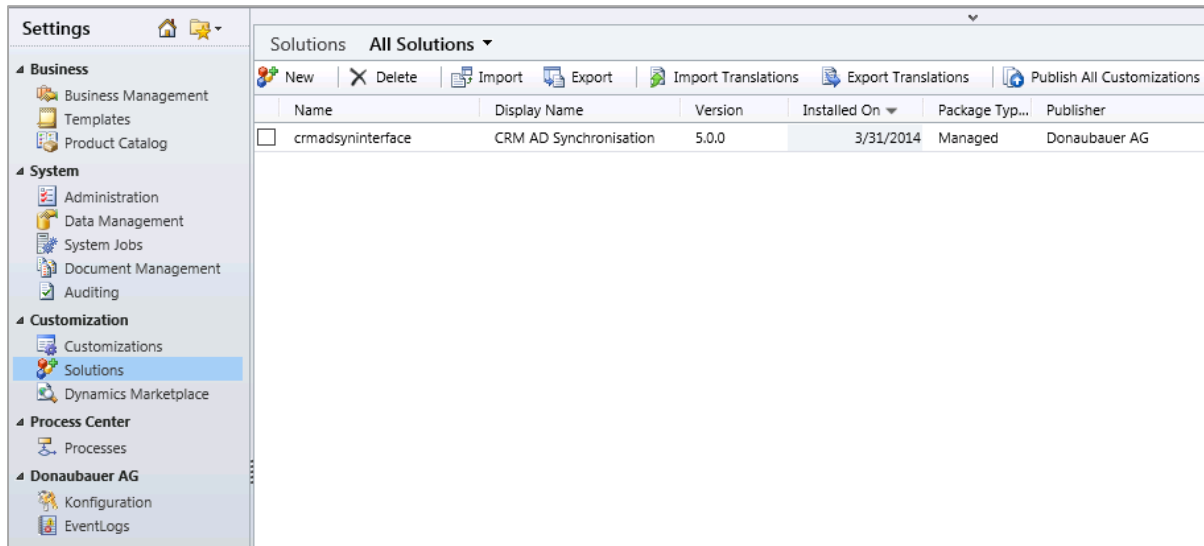
Just as for installing the interface, the following window opens up: in the upper right corner you can find information about the current version installed and the latest version of the AD Synchronisation interface.
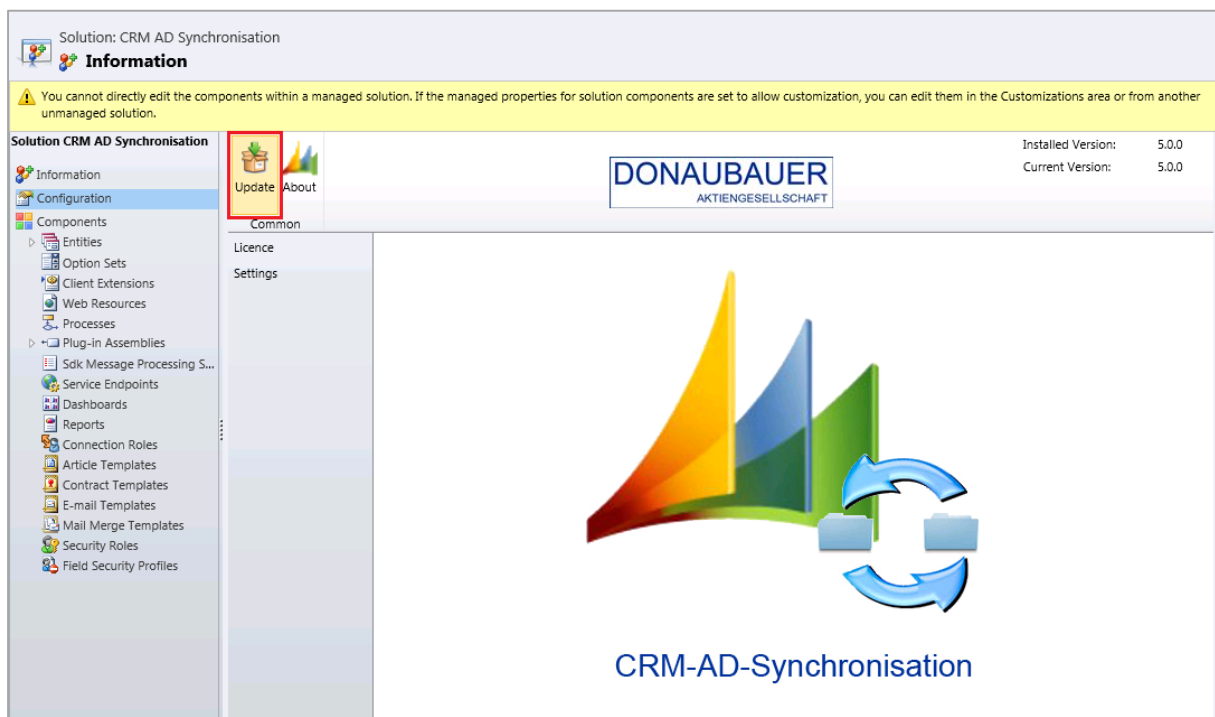
If your currently installed version is not the latest version of the interface, you can carry out an update by clicking on the "Update" button. The following window appears:
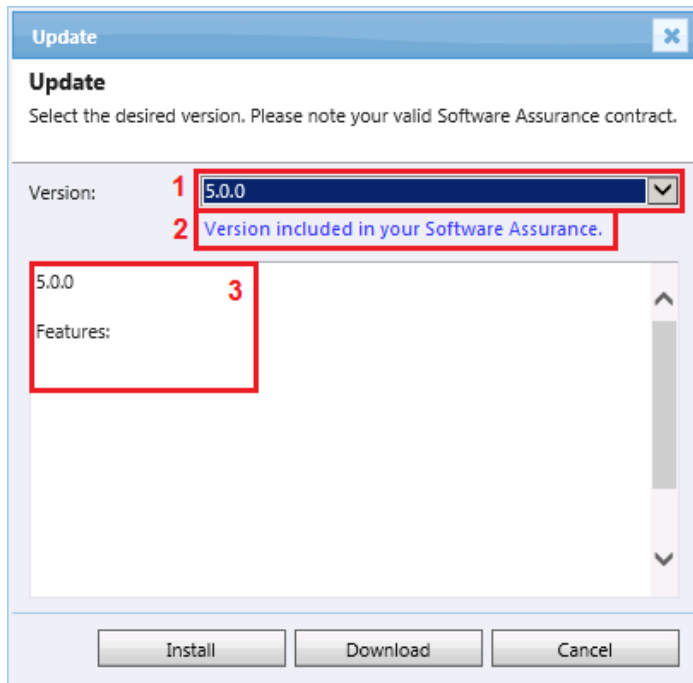
At first, you can view the versions to be downloaded.

Now, you can check if the displayed version was published within your purchased software assurance, allowing you to download this version.

The third point of this window is a detailed description of new features and bugfixes of the previous version.

(Our screenshot doesn't list anything in the "Features" item, since 5.0.0 is the standard version.)

Now you may decide whether you want to directly install the new version or download the solution and install it manually at a later time.

The "Install" button directly imports the new version. You can use it shortly afterwards.

By clicking the "Download" button you can download the latest version as a zip file.

Just in case the update should not be carried out, the routine can be stopped by the "Cancel" button.

CRM-AD-Synchronisation
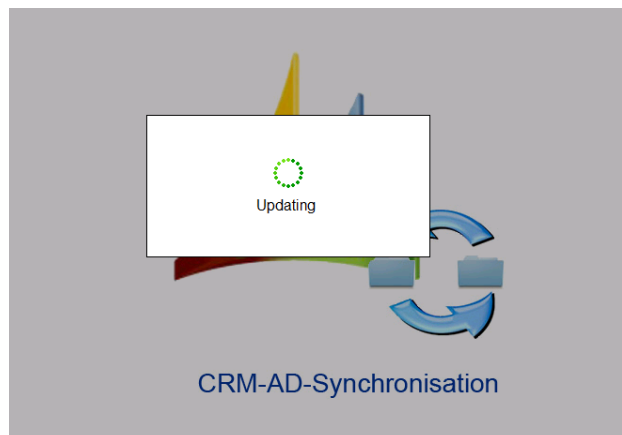
7. Uninstalling the Active Directory Synchronisation

In order to uninstall the interface, please proceed as follows.

Firstly, terminate all AD Synchronisation system orders.
To do so, go to "Bulk Record Deletion" in the "Data Management" entity.
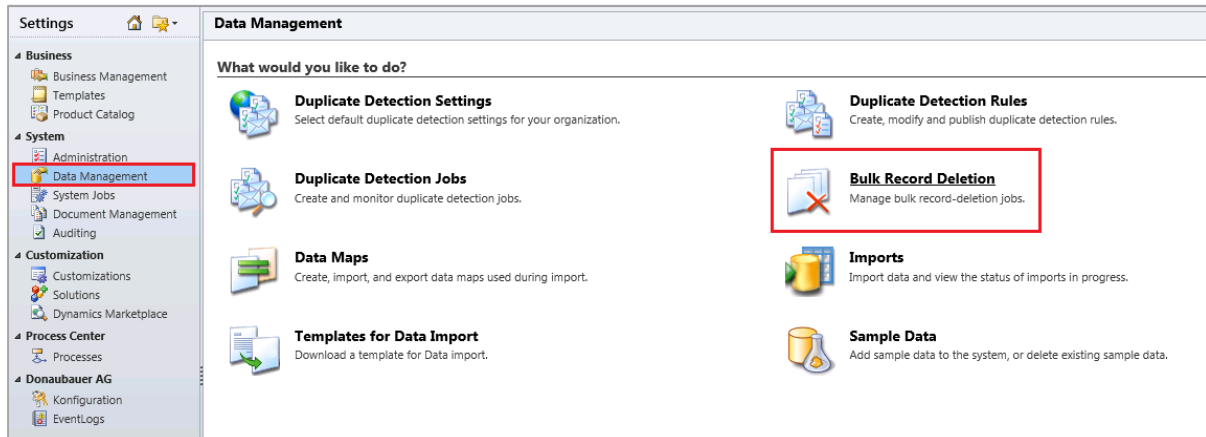
Now, select "Recurring Bulk Deletion System Jobs" in order to view a list of all this orders.
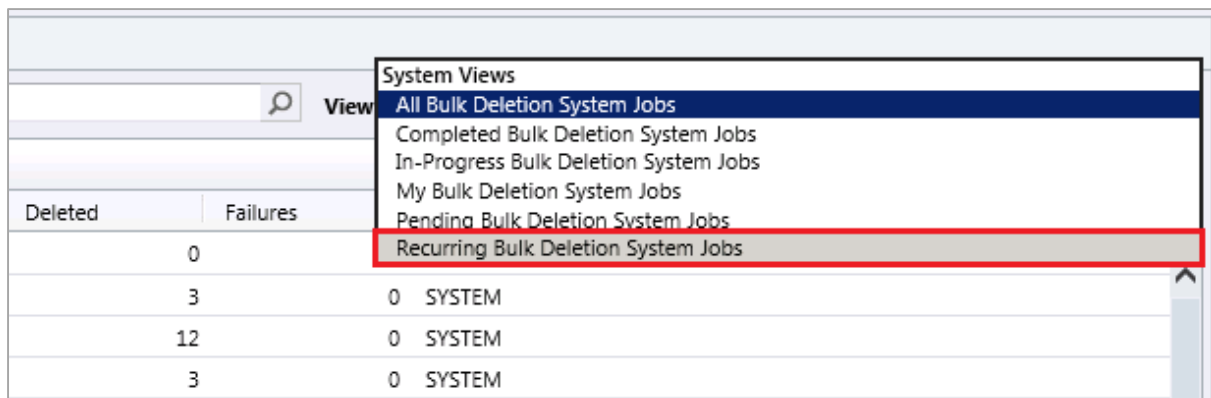
Select all "Crm AD Synchronisation" system order and confirm it by clicking "Cancel" in the "More Actions" section.
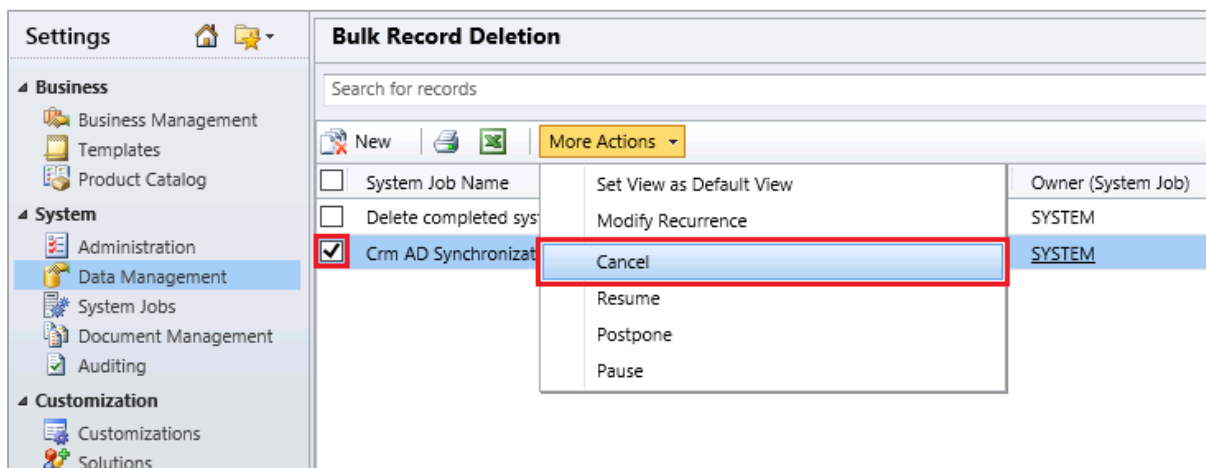
Subsequently, select the solution "crmadsyninterface" in the "Solutions" entity and remove them with the "Delete" button in the toolbar.
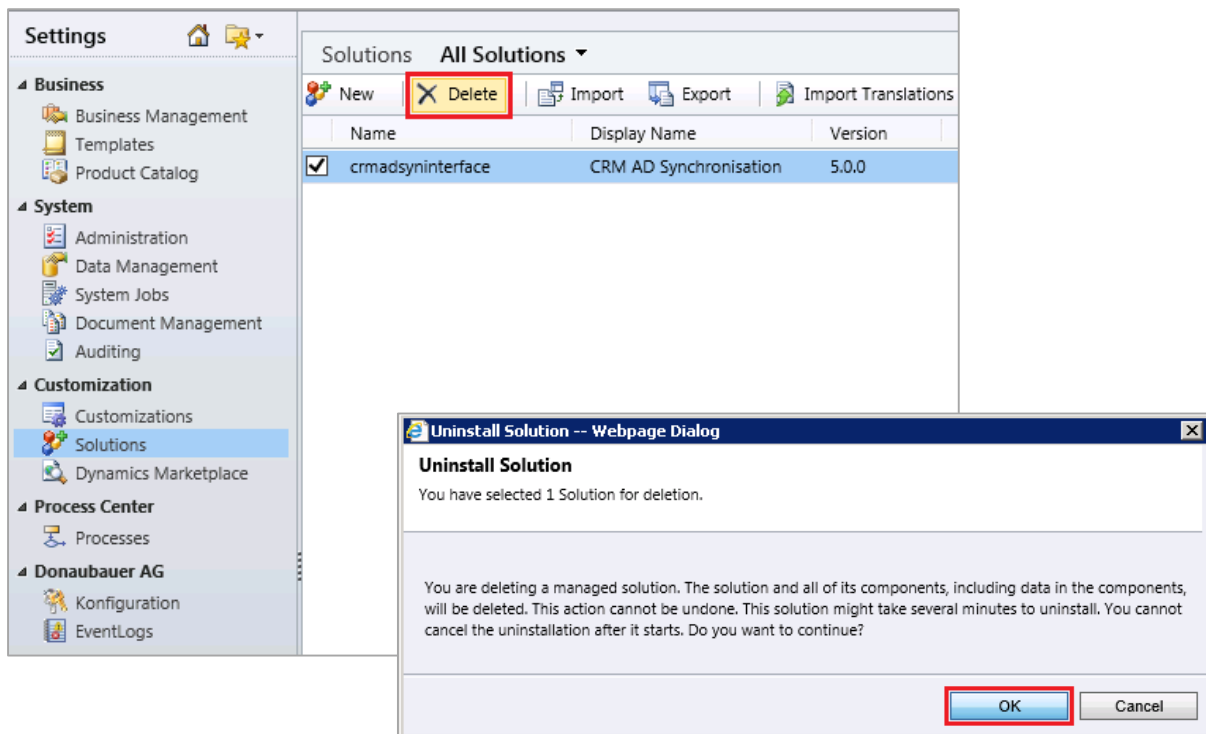
Confirm with the "OK" button and the solution is being deleted.

After rebooting your system (Crtl + F5), the section "Donaubauer AG" with the entities "Configuration" and "EventLog" disappeared in the left application area.
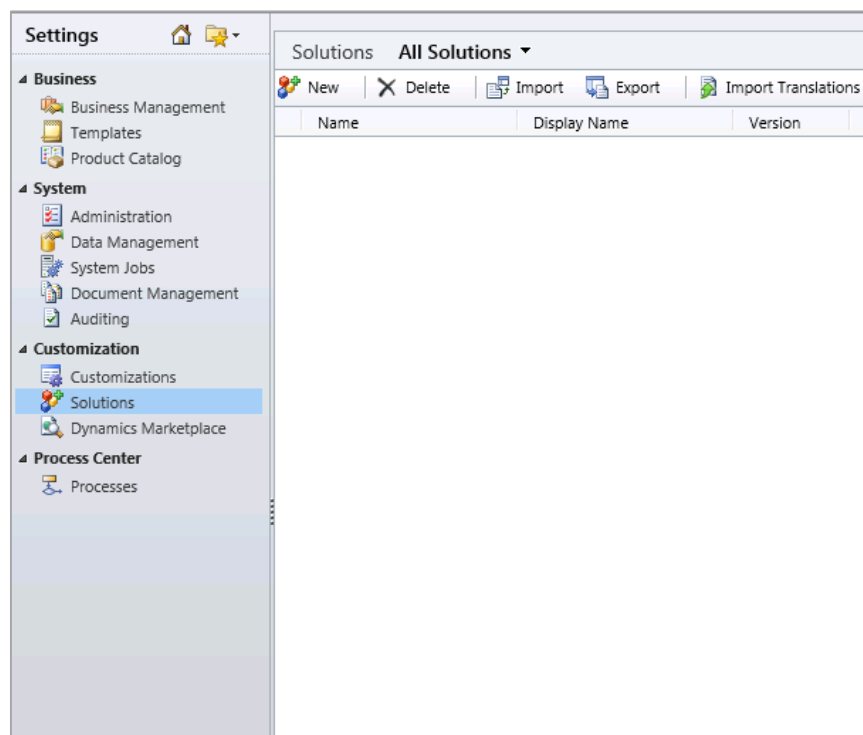
Your Active Directory Synchronisation is now entirely uninstalled.

8. Appendix: Examples for the mapping XML

8.1. Standard template of the field mapping XML

Template of the field mapping XML:
(This XML is used with the standard versions of the AD Synchronisation.)

```xml
<?xml version="1.0" encoding="utf-8" ?>
<FieldMapping>
        <Mapping>
                <CrmAttribute>firstname</CrmAttribute>
                <AdAttribute>GivenName</AdAttribute>
                <SyncAction>Copy</SyncAction>
                <CrmDataType>string</CrmDataType>
        </Mapping>
        <Mapping>
                <CrmAttribute>lastname</CrmAttribute>
                <AdAttribute>sn</AdAttribute>
                <SyncAction>Copy</SyncAction>
                <CrmDataType>string</CrmDataType>
        </Mapping>
        <Mapping>
                <CrmAttribute>internalemailaddress</CrmAttribute>
                <AdAttribute>Mail</AdAttribute>
                <SyncAction>Copy</SyncAction>
                <CrmDataType>string</CrmDataType>
        </Mapping>
        <Mapping>
                <CrmAttribute>address1_telephone1</CrmAttribute>
                <AdAttribute>TelephoneNumber</AdAttribute>
                <SyncAction>Copy</SyncAction>
                <CrmDataType>string</CrmDataType>
        </Mapping>
        <Mapping>
                <CrmAttribute>mobilephone</CrmAttribute>
                <AdAttribute>mobile</AdAttribute>
                <SyncAction>Copy</SyncAction>
                <CrmDataType>string</CrmDataType>
        </Mapping>
        <Mapping>
                <CrmAttribute>address1_fax</CrmAttribute>
                <AdAttribute>facsimileTelephoneNumber</AdAttribute>
                <SyncAction>Copy</SyncAction>
                <CrmDataType>string</CrmDataType>
        </Mapping>
        <Mapping>
                <CrmAttribute>homephone</CrmAttribute>
                <AdAttribute>homePhone</AdAttribute>
                <SyncAction>Copy</SyncAction>
                <CrmDataType>string</CrmDataType>
        </Mapping>
        <Mapping>
                <CrmAttribute>address1_telephone3</CrmAttribute>
                <AdAttribute>pager</AdAttribute>
                <SyncAction>Copy</SyncAction>
                <CrmDataType>string</CrmDataType>
        </Mapping>
        <Mapping>
                <CrmAttribute>address1_stateorprovince</CrmAttribute>
                <AdAttribute>st</AdAttribute>
                <SyncAction>Copy</SyncAction>
                <CrmDataType>string</CrmDataType>
        </Mapping>
        <Mapping>
                <CrmAttribute>address1_postalcode</CrmAttribute>
                <AdAttribute>postalCode</AdAttribute>
                <SyncAction>Copy</SyncAction>
                <CrmDataType>string</CrmDataType>
        </Mapping>
        <Mapping>
```

```
                                  <CrmAttribute>address1_city</CrmAttribute>
                                  <AdAttribute>l</AdAttribute>
                                  <SyncAction>Copy</SyncAction>
                                  <CrmDataType>string</CrmDataType>
                  </Mapping>
                  <Mapping>

                                  <CrmAttribute>address1_line1</CrmAttribute>
                                  <AdAttribute>streetAddress</AdAttribute>
                                  <SyncAction>Copy</SyncAction>
                                  <CrmDataType>string</CrmDataType>
                  </Mapping>
</FieldMapping>
```

8.2. Enterprise template of the field mapping XML

Template of the field mapping XML:
(Fields of the table in item 4.4)

```
<?xml version="1.0" encoding="utf-8" ?>
<FieldMapping>
                  <Mapping>
                                  <CrmAttribute>firstname</CrmAttribute>
                                  <AdAttribute>GivenName</AdAttribute>
                                  <SyncAction>Copy</SyncAction>
                                  <CrmDataType>string</CrmDataType>
                  </Mapping>
                  <Mapping>

                                  <CrmAttribute>lastname</CrmAttribute>
                                  <AdAttribute>sn</AdAttribute>
                                  <SyncAction>Copy</SyncAction>
                                  <CrmDataType>string</CrmDataType>
                  </Mapping>
                  <Mapping>

                                  <CrmAttribute>internalemailaddress</CrmAttribute>
                                  <AdAttribute>Mail</AdAttribute>
                                  <SyncAction>Copy</SyncAction>
                                  <CrmDataType>string</CrmDataType>
                  </Mapping>
                  <Mapping>

                                  <CrmAttribute>address1_telephone1</CrmAttribute>
                                  <AdAttribute>TelephoneNumber</AdAttribute>
                                  <SyncAction>Copy</SyncAction>
                                  <CrmDataType>string</CrmDataType>
                  </Mapping>
                  <Mapping>

                                  <CrmAttribute>mobilephone</CrmAttribute>
                                  <AdAttribute>mobile</AdAttribute>
                                  <SyncAction>Copy</SyncAction>
                                  <CrmDataType>string</CrmDataType>
                  </Mapping>
                  <Mapping>

                                  <CrmAttribute>address1_fax</CrmAttribute>
                                  <AdAttribute>facsimileTelephoneNumber</AdAttribute>
                                  <SyncAction>Copy</SyncAction>
                                  <CrmDataType>string</CrmDataType>
                  </Mapping>
                  <Mapping>

                                  <CrmAttribute>homephone</CrmAttribute>
                                  <AdAttribute>homePhone</AdAttribute>
                                  <SyncAction>Copy</SyncAction>
                                  <CrmDataType>string</CrmDataType>
                  </Mapping>
                  <Mapping>

                                  <CrmAttribute>address1_telephone3</CrmAttribute>
                                  <AdAttribute>pager</AdAttribute>
                                  <SyncAction>Copy</SyncAction>
                                  <CrmDataType>string</CrmDataType>
                  </Mapping>
                  <Mapping>
```

```
                                <CrmAttribute>address1_country</CrmAttribute>
                                <AdAttribute>c</AdAttribute>
                                <SyncAction>ConvertCountry</SyncAction>
                                <CrmDataType>string</CrmDataType>
                </Mapping>
                <Mapping>

                                <CrmAttribute>address1_stateorprovince</CrmAttribute>
                                <AdAttribute>st</AdAttribute>
                                <SyncAction>Copy</SyncAction>
                                <CrmDataType>string</CrmDataType>
                </Mapping>
                <Mapping>

                                <CrmAttribute>address1_postalcode</CrmAttribute>
                                <AdAttribute>postalCode</AdAttribute>
                                <SyncAction>Copy</SyncAction>
                                <CrmDataType>string</CrmDataType>
                </Mapping>
                <Mapping>

                                <CrmAttribute>address1_city</CrmAttribute>
                                <AdAttribute>l</AdAttribute>
                                <SyncAction>Copy</SyncAction>
                                <CrmDataType>string</CrmDataType>
                </Mapping>
                <Mapping>

                                <CrmAttribute>address1_line1</CrmAttribute>
                                <AdAttribute>streetAddress</AdAttribute>
                                <SyncAction>Copy</SyncAction>
                                <CrmDataType>string</CrmDataType>
                </Mapping>
                <Mapping>

                                <CrmAttribute>isdisabled</CrmAttribute>
                                <AdAttribute>userAccountControl</AdAttribute>
                                <SyncAction>SetState</SyncAction>
                                <CrmDataType>bool</CrmDataType>
                </Mapping>
</FieldMapping>
```

Should you have any questions regarding the AD Synchronisation interface or need further support, do not hesitate to contact us.

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Informationen about the AD Synchronisation interface: http://www.donaubauer.com/de/#!ADsync

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